

**Amendments to the Claims**

This listing of claims will replace all prior versions and listings of claims in the application:

**Listing of Claims:**

Claim 42 (Currently Amended): A method for ~~use in a flow matrix, which utilizes detecting an analyte in a sample in a flow matrix by use of biospecific affinity reactions to detect an analyte in a sample, and reaction, which method comprises:~~

- i. allowing ~~the sample comprising the analyte~~ and an analytically detectable reactant (Reactant\*) ~~and a sample comprising the analyte~~ to migrate through flow channels in a flow matrix to a detection zone (DZ) located in the matrix, in which there is a firmly anchored biospecific affinity reactant (Capturer), and
- ii. capturing the Reactant\* in the DZ in an amount related to the amount of analyte in the sample,

wherein

- A) the Reactant\* has labeled particles as an analytically detectable group, and
- B) the Capturer is anchored to the matrix by immobilized particles which exhibit hydrophilic groups on their surface, wherein the particles anchoring the Capturer have a diameter smaller than a smallest inner dimension of the flow channels of the flow matrix and do not interfere with detection of Reactant\* in the detection zone.

Claim 43 (Previously Presented): The method according to claim 42, wherein immobilization of a biospecific affinity reactant by covalent binding is to the hydrophilic groups on the Capturer particles.

Claim 44 (Currently Amended): The method according to claim 42, wherein ~~immobilization of~~ a mixture of biospecific affinity reactants is immobilized to the hydrophilic groups on the Capturer particles.

Claim 45 (Currently Amended): The method according to claim 42, wherein ~~immobilization of~~ a mixture of biospecific affinity reactants found in allergen extracts is immobilized to the hydrophilic groups on the Capturer particles.

Claim 46 (Currently Amended): The method according to claim 42, wherein ~~immobilization of~~ a mixture of biospecific affinity reactants found in biological material used to detect autoantibodies is immobilized to the hydrophilic groups on the Capturer particles.

Claim 47 (Previously Presented): The method according to claim 42, wherein the hydrophilic groups are hydroxy, carboxy, amino or sulphonate groups.

Claim 48 (Previously Presented): The method according to claim 42, wherein the analyte is an antibody of IgE or IgG type with specificity to allergens.

Claim 49 (Previously Presented): The method according to claim 42, wherein the analyte is an antibody of IgG, IgM or IgA type with specificity to autoantigens.

**Claim 50 (Previously Presented):** The method according to claim 42, wherein the particles anchoring the Capturer have a size in the range of 0.1-100  $\mu\text{m}$  and the flow channels of the matrix have a smallest inner dimension in the range of 0.4-100  $\mu\text{m}$ .

**Claim 51 (Previously Presented):** The method according to claim 42, wherein the particles which anchor the Capturer have a size in the range of 0.1-1000  $\mu\text{m}$ .

**Claim 52 (Previously Presented):** The method according to claim 42, wherein the particles which anchor the Capturer have a size in the range of 0.1-100  $\mu\text{m}$ .

**Claim 53 (Previously Presented):** The method according to claim 42, wherein the labeled particles in the Reactant\* have a diameter in the range of 0.01-5  $\mu\text{m}$ .

**Claim 54 (Previously Presented):** The method according to claim 42, wherein the flow channels have a smallest inner diameter in the range of 0.4-1000  $\mu\text{m}$ .

**Claim 55 (Previously Presented):** The method according to claim 42, wherein the flow channels have a smallest inner dimension in the range of 0.4-100  $\mu\text{m}$ .

**Claim 56 (Previously Presented):** The method according to claim 42, wherein the labeled particles are fluorescent or coloured.

Claim 57 (Previously Presented): The method according to claim 42, wherein the Reactant\* is predeposited in the matrix upstream of the DZ.

Claim 58 (Previously Presented): The method according to claim 57, wherein the Reactant\* is predeposited in the matrix upstream of a sample application site.

Claim 59 (Previously Presented): The method according to claim 42, wherein the particles which anchor the Capturer to the matrix are a synthetic polymer, a semisynthetic polymer or a biopolymer, which on its surface exhibits hydrophilic groups.

Claim 60 (Currently Amended): The method according to claim 42, wherein the Reactant\* is captured in the DZ by formation of a ternary complex of Reactant'-analyte-Reactant\*, wherein the Reactant\* binds to the analyte simultaneously or in sequence and Reactant' is the firmly anchored Capturer or a reactant to which the Capturer binds is capable of binding by biospecific affinity.

Claim 61 (Previously Presented): The method according to claim 60, wherein the analyte is an antigen and the Reactant' and Reactant\* are antibodies with specificity for epitopes on the analyte.

Claim 62 (Previously Presented): The method according to claim 42, wherein the method is performed in connection with diagnosing allergy or autoimmune disease.

Claim 63 (Previously Presented): A test kit when used for performing analytical methods in a flow matrix, which methods utilize biospecific affinity reactions to detect an analyte in a sample, which kit comprises (i) a flow matrix having a detection zone (DZ), in which there is a firmly anchored biospecific affinity reactant (Capturer), and (ii) an analytically detectable reactant (Reactant\*),

wherein

- A) the Reactant\* has labeled particles as an analytically detectable group, and
- B) the Capturer is anchored to the matrix by immobilized particles which exhibit hydrophilic groups on their surface, wherein the particles anchoring the Capturer have a diameter smaller than a smallest inner dimension of the flow channels and do not interfere with detection of Reactant\* in the detection zone.

Claim 64 (Previously Presented): The kit according to claim 63, wherein immobilization of a biospecific affinity reactant by covalent binding is to the hydrophilic groups on the Capturer particles.

Claim 65 (Previously Presented): The kit according to claim 63, wherein immobilization of a complex mixture of biospecific affinity reactants is to the hydrophilic groups on the Capturer particles.

Claim 66 (Previously Presented): The kit according to claim 63, wherein immobilization of a complex mixture of biospecific affinity reactants found in allergen extracts is to the hydrophilic groups on the Capturer particles.

**Claim 67 (Previously Presented):** The kit according to claim 63, wherein immobilization of a complex mixture of biospecific affinity reactants found in biological material used to detect autoantibodies is to the hydrophilic groups on the Capturer particles.

**Claim 68 (Previously Presented):** The kit according to claim 63, wherein the hydrophilic groups are hydroxy, carboxy, amino or sulphonate groups.

**Claim 69 (Previously Presented):** The kit according to claim 63, wherein the analyte is an antibody of IgE or IgG type with specificity to allergens.

**Claim 70 (Previously Presented):** The kit according to claim 63, wherein the analyte is an antibody of IgG, IgM or IgA type with specificity to autoantigens.

**Claim 71 (Previously Presented):** The kit according to claim 63, wherein the particles anchoring the Capturer have a size in the range of 0.1-100  $\mu\text{m}$  and the flow channels of the matrix have a smallest inner dimension in the range of 0.4-100  $\mu\text{m}$ .

**Claim 72 (Previously Presented):** The kit according to claim 63, wherein the particles which anchor the Capturer have a size in the range of 0.1-1000  $\mu\text{m}$ .

**Claim 73 (Previously Presented):** The kit according to claim 63, wherein the particles which anchor the Capturer have a size in the range of 0.1-100  $\mu\text{m}$ .

**Claim 74 (Previously Presented):** The kit according to claim 63, wherein the labeled particles in the Reactant\* have a diameter in the range of 0.01-5  $\mu\text{m}$ .

**Claim 75 (Previously Presented):** The kit according to claim 63, wherein the flow channels have a smallest inner dimension in the range of 0.4-1000  $\mu\text{m}$ .

**Claim 76 (Previously Presented):** The kit according to claim 63, wherein the flow channels have a smallest inner dimension in the range of 0.4-100  $\mu\text{m}$ .

**Claim 77 (Previously Presented):** The kit according to claim 63, wherein the labeled particles are fluorescent or coloured.

**Claim 78 (Previously Presented):** The kit according to claim 63, wherein the Reactant\* is predeposited in the matrix upstream of the DZ.

**Claim 79 (Previously Presented):** The kit according to claim 78, wherein the Reactant\* is predeposited in the matrix upstream of a sample application site.

**Claim 80 (Previously Presented):** The kit according to claim 63, wherein the particles which anchor the Capturer to the matrix are a synthetic polymer, a semisynthetic polymer or a biopolymer, which on its surface exhibits hydrophilic groups.

**Claim 81 (Previously Presented):** The kit according to claim 63, wherein the Reactant\* is captured in the DZ by formation of a ternary complex of Reactant'-analyte-

Reactant\*, wherein the Reactant\* binds to the analyte simultaneously or in sequence and Reactant' is the firmly anchored Capturer or a reactant to which the Capturer is capable of binding by biospecific affinity.

Claim 82 (Previously Presented): The kit according to claim 81, wherein the analyte is an antigen and the Reactant' and Reactant\* are antibodies with a specificity for epitopes on the analyte.

Claim 83 (Previously Presented): The kit according to claim 63, wherein the method is performed in connection with diagnosing allergy or autoimmune disease.